vFree review
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Tangle-free vFree wireless headphones
Product name: vFree On-Ear Bluetooth Headphones
Manufacturer: Velodyne Acoustics, Inc.
Website: http://velodyne.com/headphones/vfree-headphones.html
price: $299

The terms “wireless earphones,” “wireless canalphones,” and “wireless earbuds” could be considered misnomers. Such “wireless” accessories for listening to a mobile music player, in many cases, actually have an exposed wire connecting the accessory’s two earpieces; one example is the BackBeat GO earbuds previously reviewed in this column. Their wire could be as susceptible to tangling or breakage as the one that non-Bluetooth competitors have. An alternative accessory without an exposed wire that avoids spaghetti-like misbehavior is “wireless headphones” such as Velodyne Acoustics’ vFree On-Ear Bluetooth Headphones (Figure 1).

Figure 1. Many “wireless” accessories for portable music playing devices have an exposed wire, but vFree headphones look completely wireless (the wire connecting vFree’s two earpieces is hidden).

vFree headphones come in an eye-catching package—it’s a white cardboard box measuring about 10" x 10" x 2" with a black molded-plastic lid attached to the box with four oval pieces of clear tape. Two of the box’s sides advertise Velodyne’s name, the third has copyright details, and the fourth has a plastic piece for hanging the box from a metal rod in a brick and mortar’s display. The box’s back side

includes a photograph of vFree headphones surrounded by English and French text describing their main features and specs. Inside the box is a white molded-plastic liner that has a concavity aligning with the black lid's corresponding convex bulge to accommodate the headphones (Figure 2). The bulge might remind prospective buyers of Han Solo encased in carbonite.

Figure 2. vFree wireless headphones come in a distinctive white cardboard box with a white molded-plastic liner and black molded-plastic lid. This package includes a black cloth carrying pouch, audio bypass cable, USB charging cable, USB charger, and a small paper sheet with Bluetooth pairing instructions on one side and a diagram explaining the headphones' buttons on the other.

This package's contents (Figure 2) include a 4' micro USB charging cable, a USB wall charger, a 4' audio bypass cable with 3.5 mm (1/8") connector, a black cloth carrying pouch (about 9" tall x 6" wide) with a drawstring for security, and a single-sheet 3.5" x 2.5" quick-start guide (this sheet has English and French instructions about Bluetooth pairing that are set in a minuscule font on one side, and a diagram of the vFree's controls on the other). The contents do not include a printed user guide; instead, it is available for download from Velodyne's web site (a search found the guide here).

Removing the four pieces of tape and the black lid reveals the glossy jet-black vFree headphones securely nestled in the white liner's concavity. Their plastic earpieces are a futuristic teardrop shape measuring roughly 3.5" tall x 2.5" wide x 1.5" deep. They have oval padded cushions (~1/2" thick) with slightly (~1/8") smaller dimensions and are interconnected by a adjustable length metal band housed (along with a wire) in a glossy jet-black plastic band that has a similar padded cushion (Figure 3). The metal band has a hinge on either side so that the headphones can be folded (Figure 3), reducing them to a size that fits in the carrying pouch. One benefit of vFree's thin plastic framework is its light weight (5.9 ounces) so that it feels more like a hand towel on the user's head and ears than a pair of dense rocks. A potential drawback, however, is the potential perception that vFree is flimsy or cheaply engineered. As we'll see momentarily, these headphones are anything but cheaply engineered.

Figure 3. vFree headphones can fold thanks to a metal band with two hinges (red arrows). When folded, the headphones easily fit in the included carrying pouch. The metal band has a padded cushion similar to the ones on the earpieces (blue arrows).

vFree's left and right earpieces are readily distinguishable due to the presence of different controls on each. The left earpiece has a micro USB port (for use with the aforementioned USB wall charger and cable) and an audio port for the audio bypass cable (blue oval in Figure 3) plus an LED (red circle in Figure 3) which indicates that the headphones' battery is low (flashes red every 10 seconds). The right earpiece has two raised buttons for adjusting audio volume (red rectangle in Figure 3)—one increases volume, the other decreases—located next to the padded cushion (blue arrow in Figure 3) on the plastic side that faces toward the wearer's back. Below these two buttons is a multipurpose LED (red circle in Figure 3) that indicates vFree's power status (blue on, red off), Bluetooth status,

and call status (details are included in the downloadable user guide). In addition, the right earpiece has a microphone and a sideways-facing plastic cover divided into three irregularly shaped and sized buttons (Figure 4). One of these buttons controls power on and off, another controls play-pause and phone-call functions, and the third controls next/previous tunes.

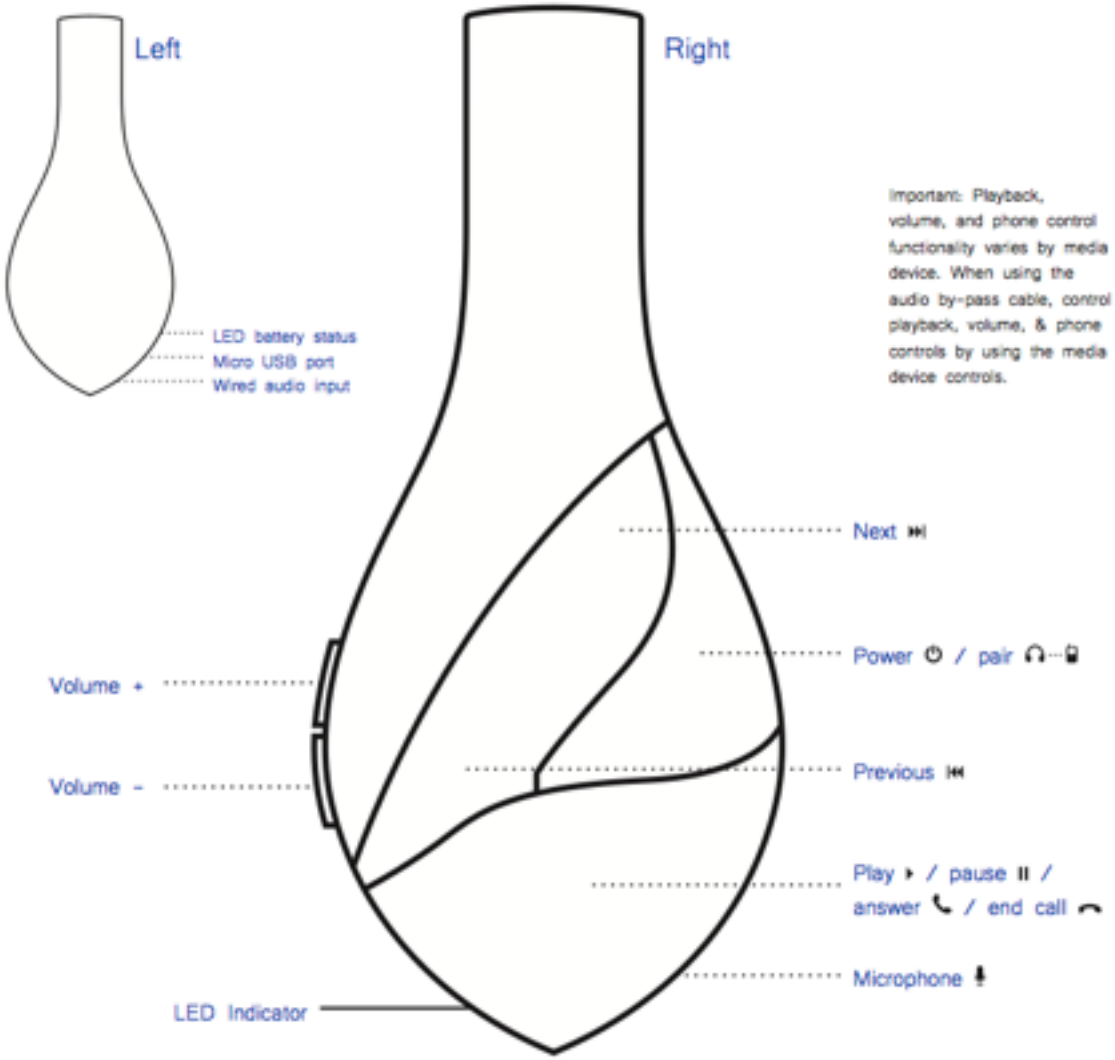
Left
Right
LED battery status
Micro USB port
Wired audio input
Important: Playback, volume, and phone control functionality varies by media device. When using the audio by-pass cable, control playback, volume, & phone controls by using the media device controls.
Next ⏭
Power ⏻ / pair
Volume +
Volume –
Previous ⏮
Play ▶ / pause ⏸ / answer / end call
Microphone
LED Indicator

Figure 4. vFree's left and right earpieces are readily distinguishable because of their distinctive controls—the left one has audio and USB ports plus an LED indicator; the right has buttons that control volume, power, play/pause, next/previous, and phone call functions. The right earpiece also houses an LED indicator and microphone.

The following audio and wireless specs appear in vFree's user guide.
driver size: 34 mm
frequency response: 20 Hz – 20 kHz
sensitivity: 98 dB/1 kHz/1 mW
impedance: 32Ω

frequency range: 2.4Ghz – 2.4835GHz
transmission range: Up to 10 m (33')
supports Bluetooth v2.1 + EDR, A2DP v1.2, AVRCP v1.0, HSP v1.2, HFP v1.6
supports codecs SBC, AAC, apt-X

The following battery specs appear on Velodyne Acoustics' web site.
power: Lithium-ion polymer battery, 3.7V/430mAh (rechargeable)
100 hours standby
10 hours talk and music
1.5 hours recharge time

These specs provide evidence that vFree headphones are anything but cheaply engineered. Their earpieces accommodate 34 mm drivers (speakers) that pump out remarkably high quality audio (details in a moment), Bluetooth technology that wirelessly receives audio from a mobile music player and calls from a cellphone located up to ~30' away, and a battery that officially supports 10 hours of talk/music and 100 hours of standby. Fitting all of that hardware, plus the aforementioned controls, into the two earpieces is quite an engineering accomplishment.

The battery specs might be a case of underpromising and overdelivering. These specs easily were bested in the present review's battery test which resulted in a whopping 16 hours of Bluetooth music play time and a complete recharge in under 1.25 hours. The test consisted of repeated looping through one playlist on an iPhone 4S with vFree's audio volume set at an intermediate level. Although your mileage may vary, the present results indicate that a user potentially could listen to music and/or make phone calls for more than two hours daily (say, while commuting) without needing to recharge for almost two weeks.

What I like about vFree headphones, in addition to battery performance and freedom from tangled wires, is their audio quality. It is terrific. At first, my impression was that they sounded like what you would expect after turning the treble knob on a car's or home's sound system a tad past the neutral position. After adapting to the earpieces, however, the audio quality became increasingly impressive to this bassaholic. Bass instruments (brass, percussion, strings) sound so clear and to the front that each note is distinctive and deep without sounding muddy at all. vFree users almost certainly will notice voices and/or instruments in their favorite tunes that they did not notice with Apple's standard earbuds and/or other audio accessories. In a nutshell, then, Velodyne Acoustics' "bring the bass"

slogan would be more appropriate for their vFree headphones than their vPulse in-ear canalphones.

vFree's strengths—terrific audio quality, outstanding battery performance, and freedom from tangled wires—are offset by several noteworthy drawbacks. One drawback is the earpieces' padded cushions. For me, their comfort lasts only about an hour before both outer ears' pain strongly compels me to remove the headphones. This issue, however, might be specific to my eyeglasses' earpieces and/or my ears' anatomy. A related issue is that the padded cushions provide a weak seal (especially compared to in-ear canalphones)—ambient noises readily compete with vFree's otherwise outstanding audio. Perhaps this product's audio quality would be even more terrific if the cushions provided a better seal.

Another drawback is the right earpiece's three control buttons. Although they are big enough to minimize the likelihood of pressing one when intending to press another, they behaved inconsistently during testing. On some occasions, pressing the power button did not turn the power on (if it was off at the time) or off (if it was on) regardless of how long the press lasted; on others, pressing the power button did produce the appropriate result. The play/pause button likewise performed inconsistently. Perhaps a future version of vFree headphones will have uniformly shaped and sized control buttons that function consistently and have a raised symbol indicative of the button's function (such as the power on/off symbol on the corresponding button) to further facilitate correctly pressing the desired button.

A third drawback worth noting is the lack of information about vFree's battery. vFree's user guide and web page do not include information about the battery's expected lifespan, how to tell what the battery's current charge level is, whether power automatically switches to standby mode or switches off after a period of inactivity, and whether the headphones continue functioning with the audio bypass cable after the battery has died and needs to be replaced. With regard to replacing the battery, the user guide teases "Replace only with the same or equivalent type. Service should only be done by a VELODYNE factory authorized service representative," but doesn't provide any further information about battery replacement such as price, how to arrange, or how long replacement will take.

In conclusion, it would easy to give vFree headphones a low rating based upon their MSRP—$299. Why pay an amount that's roughly equivalent to the cost of a high-end smartphone, tablet, or portable music player? The concept that "you get what you pay for" applies to vFree headphones, however. Their MSRP reflects some amazing engineering that incorporates terrific audio quality, an exceptionally

long-lasting battery, and freedom from hassling with wires. vFree's strengths offset the drawbacks sufficiently to warrant a strong rating that encourages music lovers to consider giving this big bass product a serious listen despite its MSRP.

Review contributed by Barry Fass-Holmes